VI. Claims

What is claimed is:

1. A composition comprising intact cells, wherein said cells express major histocompatibility antigens with at least four common allotypes from a given mammalian species.

2. The composition of claim, wherein said allotypes each are present in 80% or more of individuals.

3. The composition of claim 1, wherein any given cell expresses only a single allotype.

4. The composition of claim 1, wherein at least one cell expresses at least two allotypes.

5. The composition of claim 1, wherein said antigens are Class I antigens.

6. The composition of claim 1, wherein said antigens are Class II antigens.

7. The composition of claim 1, wherein said antigens are both Class I and Class II antigens or other alloantigens coded by polymorphic genes.

8. The composition of claim 1, wherein said plurality is representative of all known allotypes of said mammalian species.

9. The composition of claim 1, wherein said mammal is a human.

10. The composition of claim 9, wherein said allotypes include at least one of the following human allotypes:

$HLAA_1$, A_2, A_3, A_{11}, A_{24}, A_{29}, A_{32},

B_7, B_8, B_{13}, B_{35}, B_{38}, B_{44}, B_{55}, B_{60}, B_{62},

CW_1, CW_2, CW_4, CW_5, CW_6, CW_7, CW_9, CW_{10}, CW_{11},

DR_1, DR_3, DR_4, DR_7, DR_8, DR_{11}, DR_{12}, DR_{13}, DR_{15},

ABO Blood Groups

11. The composition of claim 1, wherein said cells further express an antigen from an enveloped virus.

12. The composition of claim 11, wherein said virus is a herpesvirus.

13. The composition of claim 12, wherein said virus is a retrovirus.

14. The composition of claim 1, wherein said intact cells further express a cytokine.

15. The composition of claim 14, wherein said cytokine is selected from the group consisting of IL-1, IL-2, IL-4, IL-7, IL-12, γ-interferon and GMCSF.

16. The composition of claim 1, wherein said intact cells further express a costimulatory molecule.

17. The composition of claim 16, wherein said costimulatory molecule is B-7.

18. The composition of claim 1, wherein said cells are rendered incapable of growth.

19. The composition of claim 18, wherein said cells are lethally irradiated.

20. The composition of claim 1, further comprising a pharmaceutically acceptable carrier, diluent or excipient.

21. A method for generating an immune response in a given mammal comprising:

(a) providing a composition comprising

(i) intact cells, wherein said cells express major histocompatibility antigens with at least four allotypes from the species of said given mammal; and

(ii) a pharmaceutically acceptable carrier, diluent or excipient,

(b) administering said composition to said given mammal.

22. The method of claim 21, wherein said mammal is a human.

23. The method of claim 21, wherein said intact cells further express an antigen from an enveloped virus.

24. The method of claim 21, wherein step (a) is followed, and step (b) is preceded, by lethal irradiation of said cells.

25. A method for eliciting an immune response in a given mammal against an enveloped virus comprising:

(a) identifying a given mammal at risk of infection with said virus;

(b) providing a composition comprising

(i) intact cells, wherein said cells express major histocompatibility antigens with a plurality of allotypes from the species of said given mammal;

(ii) a pharmaceutically acceptable carrier, diluent or excipient,

(b) administering said composition to said given mammal in an amount effective to elicit said immune response.

26. The method of claim 25, wherein said mammal is a human.

27. The method of claim 25, wherein step (a) is followed, and step (b) is preceded, by irradiation of said cells.

28. The method of claim 25, wherein said intact cells further express an antigen from an enveloped virus.

29. A composition comprising intact, non-malignant cells, wherein said cells express major histocompatibility antigens with a plurality of allotypes from a given mammalian species.

30. The composition of claim 1, further comprising at least one recombinant major or minor allotypic antigen of said species.

31. The composition of claim 30, wherein said recombinant antigen is produced in a host selected from the group consisting of bacteria, fungi, insect cells and mammalian cells.